

#11

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Frédéric Nicolas, et al.

Group Art Unit: 2673

Serial No.: 09/856,164

Examiner: J. Nguyen

Filed: November 13, 2001

For: DEVICE INDICATING MOVEMENTS FOR SOFTWARE

RECEIVED

DECLARATION UNDER 37 C.F.R. § 1.131

APR 09 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Technology Center 2600

Sir:

I, Frédéric Nicolas, declare as follows:

1. I am a named co-inventor in the subject application and a citizen of France.

2. I make this declaration under 37 C.F.R. § 1.131 for the purpose of swearing behind U.S. Patent No. 6,030,290 to Powell (hereinafter "the Powell patent"), which has a U.S. filing date of June 24, 1997 (hereinafter "the reference date").

3. As background for the evidence of invention provided herewith in support of the invention described and claimed in this application, France has an official procedure whereby an inventor can send his or her invention disclosure in a sealed envelope known as an "Envelope Soleau" to the French National Patent Office. The sealed envelope is then returned to the inventor via registered

mail after having been perforated with the date at which the Envelope Soleau was received by the French Patent Office. The perforated dating guarantees the integrity of the original contents so long as the Envelope Soleau remains sealed.

4. In accordance with the requirements of the official Envelope Soleau procedure, in February of 1996, I submitted to the French National Patent Office an invention disclosure describing a movement sensing system for use in translating the movements of a user to corresponding movements of a character in a video game. The system uses a sensor, particularly a piezoelectric sensor, which is attached to a joint and used to detect whether the joint is bent or extended so as to thereby provide on/off signals for controlling a home game console such as the well-known Nintendo® console. The original sealed Envelope Soleau, perforated with the date of receipt by the French National Patent Office, remains in my possession.

5. At the time of my submission of the forementioned Envelope Soleau, I had fully conceived and set forth the movement sensing system or apparatus for fighting-style video games in which a strip integrated with piezo-wire is attached to a user's joint, such as a knee or elbow so that, each time the joint passes from a bent position to an extended position, the piezo-wire is stressed or deformed and resultingly emits an electrical signal. This

signal is transmitted to a belt converter worn by the user which translates it into a digital signal which is then transmitted to a joystick input of the video game console or computer where it works as a joystick type of control to move a character in the video game. As conceived, the movement sensing apparatus included four piezo sensors connected to the belt converter.

6. Well before the reference date, my co-inventors and I had constructed a working prototype device of the movement sensing apparatus that operated in a fully satisfactory manner.

7. The prototype relied upon "minirupteurs" or galet miniswitches of a pivotable finger type. Such finger type miniswitches carry at their extremity a galet, i.e., a touch member for receiving the force applied on such interrupter by the user, in the hollow of the elbow, for example. Such miniswitches are commercially available components, along with cabling and piezo-electric wire.

8. The galet miniswitches represented a progression in the practical implementation of our invention when, after initially experimenting with the piezo-wire, we determined that use of the piezoelectric sensor was not entirely satisfactory. The working prototype included four galet miniswitches which were located to have one sensor in the hollow of each elbow and one sensor in the hollow of each knee.

9. On December 3, 1998, we filed a patent application in France disclosing and claiming the present invention, and thereafter on December 2, 1999, an international application, WO 00/33168, was filed under the Patent Cooperation Treaty (PCT). The PCT application was nationalized in the U.S. as the subject application.

10. I am advised that, on or about October 6, 2003, an Official Action was issued in the subject application citing the Powell patent.

11. The Powell patent is directed to a momentary contact motion switch for attaching to the limb of a person. The switch is connected to a video game unit such that, when the person moves the limb bearing the sensor, the momentary contact motion switch is activated, causing a character depicted in the video game to move a corresponding limb. The momentary contact motion switch is an inertial movement sensor that relies on a movable contact arm that engages with a stationary contact arm to close the switch in response to sufficient movement of the limb, with the action of a spring returning the movable contact arm to its original position to open the switch when the movement ceases.

12. The claims in the Powell patent are all directed to a momentary contact motion switch, and are not directed to the same invention as claimed in the instant application.

13. The Powell patent issued February 29, 2000, and is not a statutory bar under 35 U.S.C. §102(b) to the instant application which has an effective international filing date of December 2, 1999.

14. Regardless of the pertinence of the Powell patent, it is not a proper reference against the above-identified application in that the invention of the subject application was conceived and reduced to practice in a World Trade Organization (WTO) member country (France) prior to the filing date of the Powell patent. Furthermore, the dates of the exhibits attached to this declaration are not earlier than January 1, 1996, and therefore these exhibits are properly presented as evidence of invention under 35 U.S.C. §104.

15. Attached hereto in support of the foregoing are the following:

a) A copy of the Envelope Soleau package including the front and back panels of the envelope itself as well as the contents thereof (Exhibit A). The contents include a page of typewritten text (in French) and two handwritten drawings, Figures 1 and 2. Figure 1 depicts the movement sensing apparatus having four piezo sensors connected to the belt converter, with the placement of the belt and sensors when worn by a user being shown in Figure 2. Date information on

this package and its contents has been redacted, but I certify that the activities associated with the preparation and submission of the Envelope Soleau to the French Patent Office, with the contents as indicated, were all completed well before the reference date.

b) A English translation of the page of typewritten text contained within the Envelope Soleau (Exhibit B). I certify that I am familiar with the French and English languages and that the translation is a true and faithful translation of the typewritten page contained within the Envelope Soleau.

c) A copy of an invoice rendered by the company, "Radiospares Composants", specifically showing that piezo-electric wire ("câble piezo" in French) as specified in the Envelope Soleau was delivered to me for a price of 398 FF (Exhibit C). The date of this document has been redacted, but I certify that the invoice and the indicated parts were received by me well before the reference date.

d) A copy of another invoice rendered by the company, "Radiospares Composants", specifying that a quantity of four galet miniswitches ("minirupteurs galet") was delivered to me for a price of 56.4 FF, as well as electrical wires ("fils de câblage") (Exhibit D). The date of this document has been

redacted, but I certify that the invoice and the indicated parts were received by me well before the reference date.

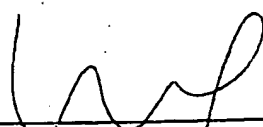
16. All of the foregoing acts took place in France prior to June 24, 1997, and not before January 1, 1996, showing that the movement sensing apparatus of the presently claimed invention was conceived and actually reduced to practice in a WTO member country before the reference date.

17. Considering the foregoing, it is respectfully requested that the Powell patent relied on by the Examiner in the Official Action of October 6, 2003, in the above-identified application be withdrawn under the provisions of 37 C.F.R. §1.131, and that the claims in the captioned application, which are otherwise believed to patentably define over the prior art of record, be allowed.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 5 APRIL 2004

By: \_\_\_\_\_

  
Frédéric Nicolas

FREDERIC NICOLAS.



-①-

COMPARTIMENT N° 1

Nom et adresse du déposant :

À remplir par ce dernier)

à remplir par ce dernier

N. COLAS

Fédération

68 rue de la Montagne Ste  
Geneviève 75005 Paris

## Réexpédié après perforation

Reeky Medical  
11111 11111

et coarctement sous le n° 13473

Ministère National de la Propriété Industrielle

PROGRESSIVE INDEPENDENT

**Medicare: ap**

INSTITUTO NAZIONALE

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RECOMMANDÉ

POS 163  
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REPUBLIQUE  
FRANCAISE

EXHIBIT A

**R E C O M M E N D E**

## DESTINATAIRE

**EXPÉDITEUR**

FRANCE

RB 4334 8441 8FR

**Présenté le :**

Distribué le :

Contre-Remboursement	Nature de l'objet
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**P142**

Ca: 0

UNCLASSIFIED

DATE 06-08-98 BY SP-6 JAC

expédient à ces frais lorsqu'elle ne peut être portée à savoir :

1. <sup>re</sup> Si elle présente une épaisseur supérieure à cinq MILLIMÈTRES (à titre indicatif : 7 pages dans chacun des composants).

2. <sup>o</sup> Si elle révèle au toucher la présence d'un CORPS DUR, susceptible de gêner la perforation, tels que carton, caoutchouc, cuir, bois, épingles, agrafe, etc.

## **Détecteur de mouvement sommaire pour jeu video de combat.**

### **Description du projet d'invention :**

La présente invention vise à remplacer pour les jeux video de combat (de type Street fighter, Mortal Kombat, etc), sur console ou sur micro-ordinateur les manettes de jeux (appelées "joy-stick").

Elle se présente sous la forme d'une ceinture contenant, un convertisseur analogique digital pour les modèles haut de gamme, ou juste un jeu de diodes pour les modèles standards, ayant une fiche de sortie compatible joy-stick et 4 entrées reliées à des câbles détecteurs piezo.

Chaque cable piezo (générant un signal électrique sinusoïdale lorsqu'ils subissent une déformation ou une pression) est intégré à une bande attachées à une des articulations du corps du joueur :

articulation du coude ou articulation du genou.

### **Le principe de l'invention est le suivant :**

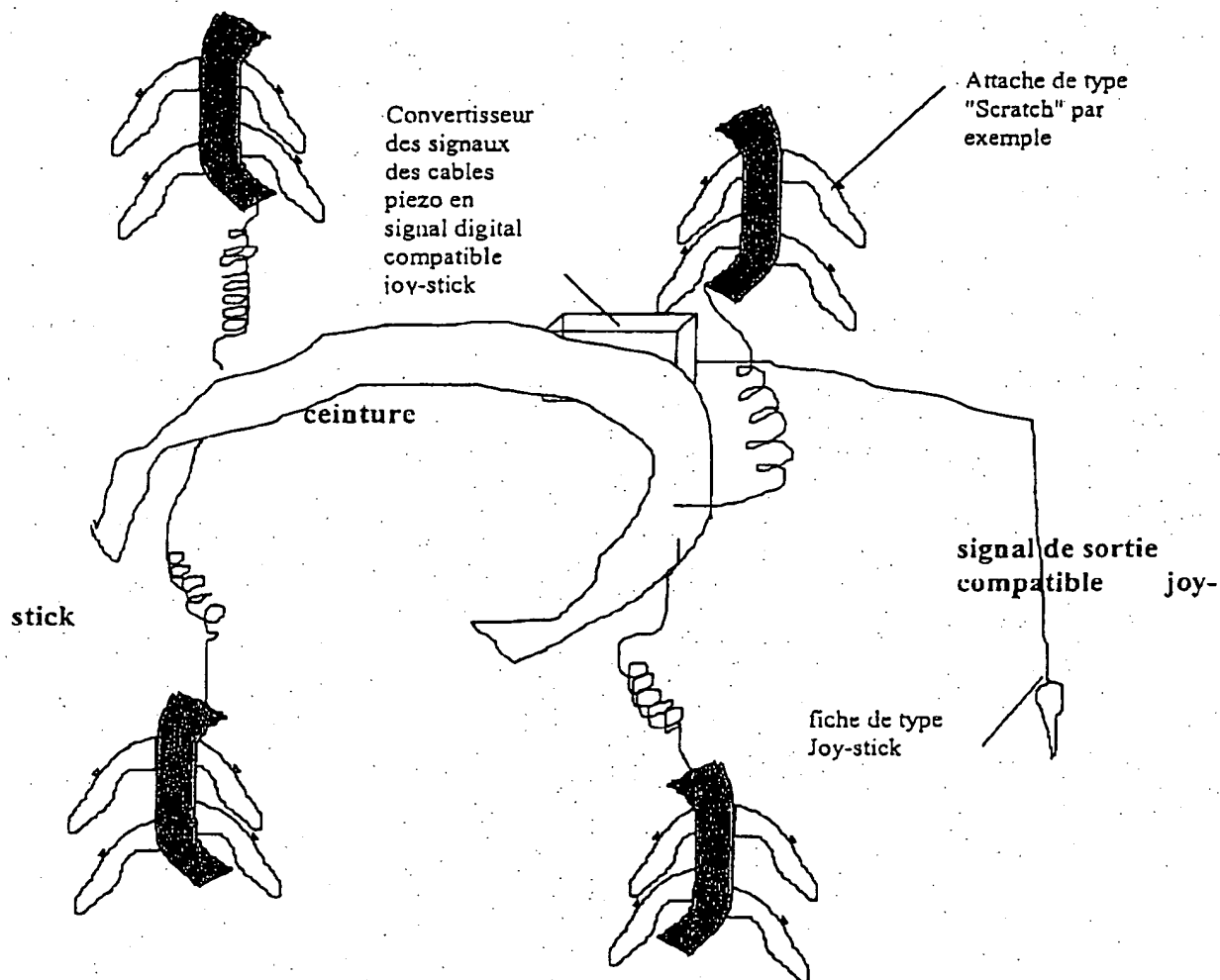
Chaque fois qu'une articulation passera de la position pliée à la position étendue, un cable piezo émettra un signal électrique. Ce signal sera relayé jusqu'au convertisseur de la ceinture qui le traduira en signal digital. Le signal digital sera alors convoyé jusqu'à l'entrée joystick de la console ou du micro où il agira comme une commande Joy-stick.

L'intérêt du montage est que dans un premier temps il n'est pas nécessaire que les capteurs de mouvements soient d'une extrême précision : on leur demande juste d'indiquer si les membres contrôlés sont pliés ou étendus.

Un tel système pourra être utilisé à la place d'un joystick dans toutes les simulation de combat, et rendra ces simulations nettement plus réalistes, sans qu'il ait été nécessaire de modifier en quoique ce soit les logiciels de simulation.

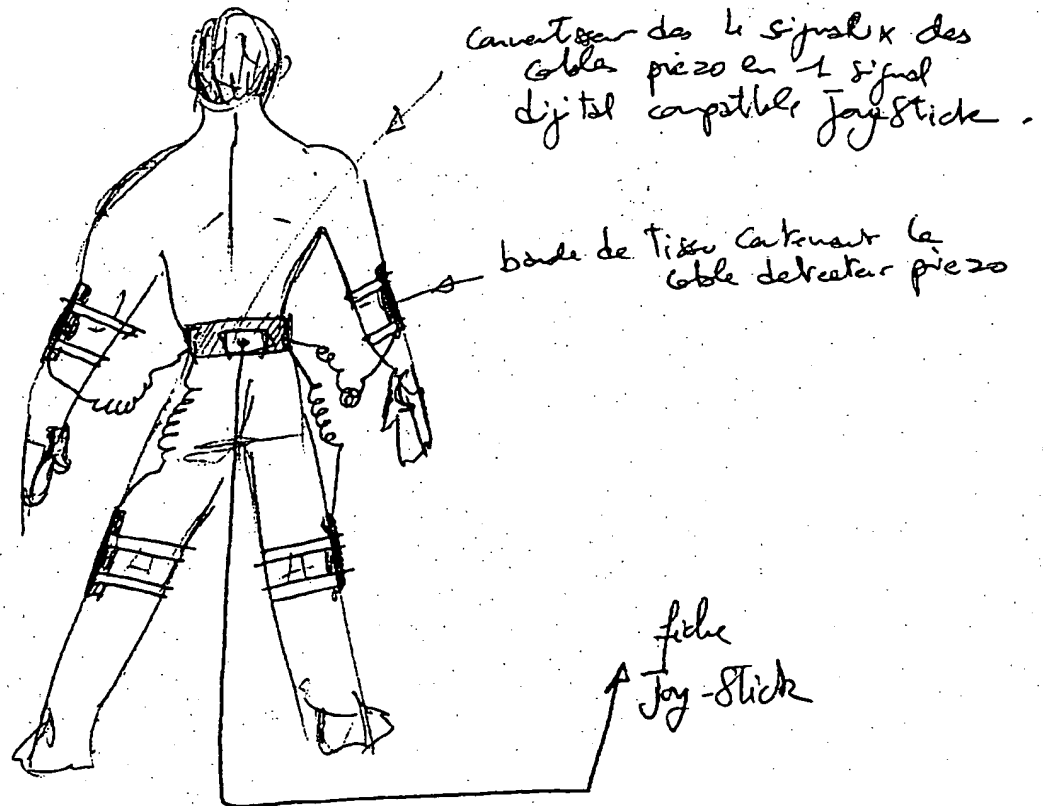
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Schéma 1 :



MISE EN PLACE DU PROJET

chénos2 :



## **TRANSLATION OF THE CONTENT OF THE "ENVELOPE SOLEAU" AS FILED BY M. NICOLAS.**

**"Rudimentary movement sensor for fighting video games"**

### **Description of the invention project :**

The present invention aims at replacing for fighting video games (Street Fighter, Mortal Kombat, etc.) on console or microcomputer, the game pads (called "joystick").

It is presently a belt containing an A/D converter for top-of-the-range equipment, or only a set of diodes for standard equipment, having an output connector which is adapted for a joystick and four inputs which are in communication with piezo-detector wires. Each piezo-wire (producing an electrical signal which has the shape of a sinusoid when stressed or deformed) is integrated into a strip which is attached to a joint of the user's body : the joint of the knee or the joint of the elbow.

### **The invention's spirit is the following one :**

Each time a joint passes from the bent position to the extended position, a piezo wire will emit an electrical signal. This signal is transmitted to the converter of the belt which translates it into a digital signal. The digital signal will then be transmitted to the joystick input of the console or of the computer, where it works as a joystick type control.

The interest of the arrangement is first that it is not necessary for the movements' sensors to be extremely precise : it is just required to them to indicate whether the monitored limbs are bent or extended.

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Such a system will be able to be used in replacement to the joystick in every fighting simulation, and will render such a simulation far more realistic, without being necessary to alter in any way the simulation softwares.

# Radiospares

## COMPOSANTS

### SIÈGE SOCIAL :

Rue Norman King - B.P. 453  
60031 BEAUVAIS Cédex  
Tél. Commercial : (16) 44 10 15 15  
Tél. Administratif : (16) 44 10 15 00  
Télex : 145 759  
Télécopie : (16) 44 10 16 00

FACTURE N°

2258451 \*\*\*P\*\*

SERVICE COMPTABILITE CLIENTS  
TEL 44 10 16 50

DATE FACTURE

### LIVRAISON A

NEURO FINANCE (STE)  
113 RUE ANATOLE FRANCE

92300 LEVALLOIS PERRET

### FACTURATION A

NICOLAS FREDERIC (MR)  
68 RUE DE LA MONTAGNE  
SAINTE GENEVIEVE

75005 PARIS

A L'ATTENTION DE	N° DE COMMANDE	DATE COMMANDE	N° REFERENCE
MR NICOLAS	NICOLAS (MR)		1931465

N°	CODE PRODUIT	QTE EXPEDIEE	BALANCE	DESIGNATION	TVA	PRIX UNITAIRE	TOTAL H.T.
01	181 5825	4	0	MINIRUPTEURS GALET	1	14.10	56.40
	C63 115920			ANCIEN CODE			
02	168 0657	1	0	FIL DE CABLAGE UL1061	1	22.00	22.00
	C251 116806			ANCIEN CODE			

PAIEMENT PAR CARTE BLEUE

EXHIBIT C

CONDITIONS DE PAIEMENT : POUR  
-ESCOMPTE NON AUTORISE- SAUF CONDITIONS PARTICULIERES  
PRECISEES SUR FACTURE



BS EN ISO 9001 1994  
Certificat numéro RS 31346

BASE H.T.	TVA	MONTANT
78.40	20.60	16.15

TOTAL H.T. 78.40

TOTAL T.V.A. 16.15

TOTAL T.T.C. 94.55

A COLLER SUR VOTRE RÈGLEMENT

2258451

# Radiospares

## COMPOSANTS

### SERVICE COMPTABILITE CLIENTS

Rue Norman King - B.P. 453  
60031 BEAUVAIS Cédex

A COLLER SUR  
VOTRE ENVELOPPE

# Radiospares

## COMPOSANTS

### SIÈGE SOCIAL:

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FACTURE N°

2095807 \*\*\*

DATE FACTURE

### LIVRAISON A

NEURO-FINANCE (STE)  
113 RUE ANATOLE FRANCE

92300 LEVALLOIS PERRET

### FACTURATION A

NEURO-FINANCE (STE)  
113 RUE ANATOLE FRANCE

92300 LEVALLOIS PERRET

A L'ATTENTION DE	N° DE COMMANDE	DATE COMMANDE	N° RÉFÉRENCE
M. NICOLAS	NICOLAS FREDERIC (MR)		179102

N°	CODE PRODUIT	QTE EXPÉDIEE	BALANCE	DÉSIGNATION	IVA	PRX UNITAIRE	TOTAL HT
01	178 5718	1	0	CAPTEUR DE PRESSION	1	120.00	120.00
	<267 34018G>			ANCIEN CODE			
02	256 809	1	0	CABLE PIEZO RWC50032C	1	398.00	398.00
	<267 34222L>			ANCIEN CODE			

PAIEMENT PAR CARTE BLEUE:  
\*\*LIVRAISON CHRONOPOST\*\*

EXHIBIT D

VENTE AVEC CLAUSE DE RÉSERVE DE PROPRIÉTÉ

CONDITIONS DE PAIEMENT : POUR  
-ESCOMPTE NON AUTORISÉ- SAUF CONDITIONS PARTICULIÈRES  
PRÉCISÉES SUR FACTURE

EVA		
BASE HT	TAUX	MONTANT
516.00	20.60	106.71

TOTAL H.T.	516.00
TOTAL T.V.A.	106.71
TOTAL T.T.C.	622.71

A JOINDRE A VOTRE RÈGLEMENT

2095807

Centre Régional Rhône-Alpes: 38, rue Mendès-France, L'Amirauté, 69120 Vaulx en Velin, Tél.: 78 79 45 55, Télécopie: 78 79 45 66, Télex: 145  
Centre Régional Sud-Ouest: 537, rue Humbert Tonnais, Z.A. chemin du Sang de Serp, 31200 Toulouse, Tél.: 62 72 75 55, Télécopie: 62 72 75 66, Télex: 145